In the Claims

1.(**canceled**)
2.(**canceled**)
3.(**canceled**)
4.(**canceled**)
5.(**canceled**)
6.(**canceled**)
7.(**canceled**)
8.(**canceled**)

9.(**previously presented**) A method to determine if an animal has Leber's congenital amaurosis or has a propensity to pass Leber's congenital amaurosis to offspring, comprising the steps of:

(A) extracting polynucleotide from a cell or sample;

(B) determining if the polynucleotide contains a mutation in an AIPL1 encoding or regulating region; and

(C) correlating the presence of the mutation as an indication of Leber's congenital amaurosis or a propensity to pass Leber's congenital amaurosis to offspring.

10.(**original**) The method of claim 9, further comprising the steps of:

obtaining a patient sample; and

amplifying the polynucleotide.

11.(**original**) The method of claim 10, wherein the amplifying is done via polymerase chain reaction.

12.(**original**) The method of claim 9, wherein the determining is done via polynucleotide sequence.

13.(**previously presented**) The method of claim 9, wherein the mutations is Trp278X.

14.(**canceled**)
15.(**canceled**)
16.(**canceled**)
17.(**canceled**)
18.(**canceled**)
19.(**canceled**)
20.(**canceled**)

21.**(previously presented)** A method for determining the presence of an AIPL1 mutant in a patient sample, which comprises:

(A) isolating polynucleotide extracted from the patient sample;

(B) hybridizing a detectably labeled oligonucleotide to the polynucleotide isolated in step (A), the oligonucleotide having at its 3' end at least 15 nucleotides complementary to a wild type polynucleotide sequence having at least one mutation;

(C) attempting to extend the oligonucleotide at its 3'-end;

(D) ascertaining the presence or absence of a detectably labeled extended oligonucleotide; and

(E) correlating the presence or absence of a detectably labeled extended oligonucleotide in step (D) with the presence or absence of a AIPL1 Trp278X mutation evidencing Leber's congenital amaurosis or a propensity to pass Leber's congenital amaurosis to offspring.

22.**(previously presented)** The method of claim 21, further comprising taking a the patient sample prior to the isolating step.

23.**(original)** The method of claim 21, wherein the isolated nucleic acid is amplified prior to hybridization.

24.**(original)** The method of claim 21, wherein the detectable label on the oligonucleotide is an enzyme, radioisotope or fluorochrome.

25.**(canceled)**
26.**(canceled)**

27.**(previously presented)** A method to determine if a cell or sample has an AIPL1 mutation comprising:

(A) extracting polynucleotide from the cell or the sample;

(B) amplifying polynucleotides which encode AIPL1; and

(C) determining if the polynucleotide contains a Trp278X mutation;

(D) correlating the presence of the mutation as an indication of Leber's congenital amaurosis or a propensity to pass Leber's congenital amaurosis to offspring.